Docket: 14466

IN	IN THE UNITED STATES PATENT AND TRADEMARK OFFICE										
First Named Inventor:	John Snyder										
Application No.:	09/928,124	\$7.4									
Filing Date:	August 10, 2001	Examiner:	L. Pham								
	A FABRICATION METHOD FOR A DEVICE FOR REGULATING FLOW OF ELECTRIC CURRENT WITH HIGH DIELECTRIC CONSTANT GATE INSULATING LAYER AND SOURCE/DRAIN FORMING SCHOTTKY CONTACT OR SCHOTTKY-	Group Art Unit:	2814								

TRANSMITTAL LETTER

Commissioner for Patents	I hereby certify that this document is being sent via First Class U.S. mail addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA
P.O. Box 1450	22313-1450 on this 23 day of June 2, 2003.
Alexandria, VA 22313-1450	V 60 Part

LIKE REGION WITH SUBSTRATE

Dear Sir:

The following documents are enclosed in connection with the above-referenced patent application:

- Information Disclosure Statement Under 37 CFR 1.97(c) (2 pages); 1.
- 2. Form PTO/SB/08A (6 pages, submitted in duplicate);
- Copies of 65 References Cited; 3.

Fee Determination (After Amendment of Claims) (1 page); 4.

Check No. 956872 in the amount of \$180; and

Return Receipt Postcard.

Respectfully submitted,

DORSEY & WHITNEY LLP

Customer Number 25763

n R. Kraus (Reg. No. 42,765) Intellectual Property Department Suite 1500, 50 South Sixth Street Minneapolis, MN 55402-1498

KrisAnne Popovits

(612) 340-5617

Date: 6.23.03

FEE DETERMINATION (After Amendment of Claims)

	Complete if Known
Application No.	09/928,124
Filing Date	August 10, 2001
First Named Inventor	John Snyder
Group Art Unit	2814
Examiner Name	L. Pham
Atty. Docket Number	14466

Claims as Amended in Response to Office Action dated: N/A

METHOD OF PAYMENT (Check One)	A	MENDME	NT FEE CALCULATION (Continu	ed)
1. The Commissioner is hereby authorized to charge indicated fees			3. ADDITIONAL FEES	
and credit any over payments to: Deposit Account No.: 04-1420 Deposit Account Name: DORSEY & WHITNEY LLP	Large Entity Fee	Small Entity Fee	The state of the s	Fee Paid
Charge any additional fee required under 37 C.F.R. 1.16 and 1.17	110	55	Extension for reply within first month	
Applicant claims small entity status (see 37 C.F.R. 1.27) Check Enclosed	410	205	Extension for reply within second month	
AMENDMENT FEE CALCULATION	930	465	Extension for reply within third month	
1. EXTRA* CLAIM FEES Claims Highest Fee	1,450	725	Extension for reply within fourth month	
Remaining Number Present from Additional Fee after Previously Extra Below*	1,970	985	Extension for reply within fifth month	
Total - = x =	1,300	650	Issue Fee-Utility/Reissue	
Indep = x =	320	160	Notice of Appeal	
First Presentation of	320	160	Filing brief in support of appeal	
Multiple Dependent Claim x	280	140	Request for oral hearing	
Subtotal (1)	110	55	Terminal Disclaimer Fee	
•	110	55	Petition to revive - unavoidable	
*Calculation of Extra Claim Fees	1,300	650	Petition to revive – unintentional	
Large Small Fee Description	130	130	Petitions to the Commissioner	
Entity Fee Pescription	180	180	Submission of IDS	\$180.00
18 9 CO Claims in excess of 20	750	375	Request for Continued Examination (RCE)	
289 Multiple dependent Claim	Other fee (s	pecify):		
Reissue independent claims over original patent Reissue claims in excess of 20 and over original patent			Subtotal (2)	\$180.00
TECHN			Total Amount of Payment:	\$180.00

Submitted by:

CUSTOMER NUMBER

Name: Jason R. Kraus

25763

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Signature: WWW HUML

Date: 6-23.13



Docket: 14466

UNITED STATES PATENT AND TRADEMARK OFFICE

First Named

Inventor:

John Snyder

Application No.:

09/928,124

Filing Date:

August 10, 2001

Examiner:

L. Pham

Title:

A FABRICATION METHOD FOR A DEVICE

FOR REGULATING FLOW OF ELECTRIC

CURRENT WITH HIGH DIELECTRIC

CONSTANT GATE INSULATING LAYER

AND SOURCE/DRAIN FORMING

SCHOTTKY CONTACT OR SCHOTTKY-

LIKE REGION WITH SUBSTRATE

Group Art Unit:

2814

INFORMATION DISCLOSURE STATEMENT **UNDER 37 CFR § 1.97(c)**

Commissioner for Patents P. O. Box 1450 Alexandria, Virginia 22313-1450 I hereby certify that this document is being sent via First Class U.S. mail addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 23 _ day of June

KrisAnne Popovits

Dear Sir:

Pursuant to 37 CFR § 1.97(c), the references listed on the attached Form PTO/SB/08A (7 sheets, submitted in duplicate) are brought to the attention of the Examiner for consideration in connection with the examination of the above-identified patent application. Copies of the identified references are enclosed as necessary. This Information Disclosure Statement ("IDS") is filed on or before the mailing date of a final office action or a notice of allowance is accompanied by the fee set forth in 37 CFR § 1.17(p).

Payment of Fee Under 37 CFR § 1.17(p)

The fee under 37 CFR § 1.17(p), required for submission of an IDS under 37 CFR § 1.97(c), is enclosed, as referenced in the attached Fee Transmittal Sheet.

06/27/2003 UABDELR1 00000004 09928124

Application No.: 09/928,124 Docket No.: 14466

Pursuant to the Manual of Patent Examining Procedure, Chapter 609, Applicant requests that the Examiner consider each of the listed documents and initial and return to the undersigned a copy of the enclosed PTO/SB/08A (submitted in duplicate).

Respectfully submitted,

DORSEY & WHITNEY LLP Customer Number 25763

Date: 6. 23.03

Jason R. Kraus

Reg. No. 42,765

Intellectual Property Department

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PTO/SB/08A (10/01) (modified) U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449A/PTO **Application Number** 09/928.124 **Filing Date** August 10, 2001 INFORMATION DISCLOSURE **First Named Inventor** John Snyder STATEMENT BY ARRIGEANT **Art Unit** 2814 (use as many sheets as necessary) L. Pham **Examiner Name** 6 **Sheet** of **Attorney Docket Number** 14466 **U.S. PATENT DOCUMENTS** Pages, Columns, Lines, DOCUMENT NUMBER Cite **Publication Date** Name of Patentee or Where Relevant Passages or Initials No. Number - Kind Code (if known) MM-DD-YYYY Applicant of Cited Document Relevant Figures Appear 4,053,924 10-11-1977 Roman et al. US-11-10-1981 4,300,152 Lepselter US-7-17-1990 Konishi et al. 4,942,441 US-Murakami et al. 5,040,034 8-13-1991 US-Ilderem et al. 5,079,182 1-7-1992 US-5,323,053 6-21-1994 Luryi et al. US-5,361,225 11-1-1994 Ozawa US-5,444,302 8-22-1995 Nakajima et al. US-Welch 5,663,584 9-2-1997 US-Welch 5,760,449 6-2-1998 US-Kizilyalli 5,767,557 6-16-1998 US-5,801,398 9-1-1998 Hebiguchi US-**FOREIGN PATENT DOCUMENTS** FOREIGN PATENT DOCUMENT TRANSLATION Country Number - Kind Code Pages, Columns, Lines, **Publication Date** Cite Name of Patentee or Where Relevant Passages Code: (if known) Initial No. MM-DD-YYYY Applicant of Cited Document or Relevant Figures Appear YES NO 0 603 102 A2 6-22-1994 冈 PCT ~ WO 01/45157 A1 6-21-2001 П CENT <u>></u>00 П **EXAMINER SIGNATURE** DATE CONSIDERED *EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet

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Application Number	09/928,124
Filing Date	August 10, 2001
First Named Inventor	John Snyder
Art Unit	2814
Examiner Name	L. Pham
Attorney Docket Number	14466

U.S. PATENT DOCUMENTS

*Examiner Initials	Cite No.	DOCUMENT NUMBER Number - Kind Code (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US- 5,883,010	3-16-1999	Merrill et al.	
		US- 6,037,605	3-14-2000	Yoshimura	
		US- 6,160,282	12-12-2000	Merrill	
		US- 6,268,636	7-31-2001	Welch	
		US- 6,323,528	11-27-2001	Yamazaki et al.	
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		US- 6,420,742	7-16-2002	Ahn et al.	"
		US- 6,509,609	1-21-2003	Zhang et al.	
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		US- 2002/0030231	3-14-2002	Okawa et al.	
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FOREIGN PATENT DOCUMENTS

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*Examiner Cite		Country	N PATENT DOCUMENT Number - Kind Code	Publication Date		Pages, Columns, Lines,	TRANSLATION		
		Code:	(if known)	MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Where Relevant Passages or Relevant Figures Appear	YES	NO	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449A/PTO Application Number 09/928.124 EM & TRADE August 10, 2001 **Filing Date** INFORMATION DISCLOSURE John Snyder First Named Inventor STATEMENT BY APPLICANT **Art Unit** 2814 (use as many sheets as necessary) Examiner Name L. Pham 3 6 **Sheet** of **Attorney Docket Number** 14466 OTHER DOCUMENTS - NON-PATENT LITERATURE DOCUMENTS Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the TRANSI ATION item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue Initials No. number(s), publisher, city and/or country where published YES NO LEPSELTER, M.P., SZE, S.M. SB-IGFET: An Insulated Gate Field Effect Transistor Using Schottky Barrier Contacts for Source and Drain. Proceedings of the IEEE, August 1968; pp. 1400-1402. П LEPSELTER, M.P., MACRAE, A.U., MACDONALD, R.W. SB-IGFET, II: An Ion Implanted IGFET Using Schottky Barriers. Proceedings of the IEEE, May 1969; pp. 812-813. KISAKI, Hitoshi. Tunnel Transistor. Proceedings of the IEEE, July 1973; pp. 1053-1054. П KOENEKE, C.J., SZE, S.M., LEVIN, R.M., KINSBRON, E. Schottky MOSFET for VLSI. IEDM, 1981; pp. 367-370. SUGINO, M., AKERS, L.A., REBESCHINI, M.E. CMOS Latch-Up Elimination Using Schottky Barrier PMOS. IEDM, 1982; pp. 462-465. П KOENEKE, C.J., LYNCH, W.T. Lightly Doped Schottky MOSFET. IEDM, 1982; pp. 466-469. П MOCHIZUKI, T., WISE, K.D. An n-Channel MOSFET with Schottky Source and Drain. IEEE Electron Device Letters, EDL-5, No. 4, April 1984; pp. 108-111. OH, C.S., KOH, Y.H., KIM, C.K. A New P-Channel MOSFET Structure with Schottky Clamped Source and Drain, IEDM, 1984; pp. 609-612. SWIRHUN, Stanley E., et al. A VLSI Suitable Schottky Barrier CMOS Process. IEEE Transactions on Electron Devices, ED-32, No. 2, February 1985; pp. 194-202. TOYE, P.A., BOHLIN, K., MASSZI, F., NORDE, H., NYLANDER, J., TIREN, T., MAGNUSSON, U. Complementary Si MESFET Concept Using Silicon-on-Sapphire Technology. IEEE Electron Device \Box Letters, Vol. 9, No. 1, January 1988; pp. 47-49. TO♥E, P.A., BOHLIN, K.E., NORDE, H., MAGNUSSON, U., TIREN, J., SODERBARG, A., ROSLING,

EXAMINER SIGNATURE

DATE CONSIDERED

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M., NASSZI, F., NYANDER, J. Silicon IC Technology Using Complementory MESFETs. Solid State

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JUN 2 6 2003 U.S. Patent and Trademark Office; U.

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			ОТІ	HER (oc	UMENTS - NON	I-PATENT LITERATURE	DOCUMENTS					
*Examiner	Cite						LETTERS), title of the article (when a symposium, catalog, etc.), date, page		TRANS	LATION			
Initials	number(s), publish						er, city and/or country where publishe	d	YES	NO			
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			TUCKER, J.R., WANG, C., LYDING, J.W., SHEN, T.C., ABELN, G.C. Nanometer Scale MOSFETs and STM Patterning on Si. SSDM 1994, August 1994; pp. 322-324.										
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DATE CONSIDERED

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Press, Sunset Beach, CA, 1995; pp. 523-528.

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PTO/SB/08A (10/01) (modified)
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449A/PTO				App	ication Numbe	er	09/928,124							
INFORMATION DISCLOSURE				Filin	g Date		August 10, 2001							
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Sheet		5												
OTHER DOCUMENTS - NON-PATENT LITERATURE DOCUMENTS														
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		Re	SNYDER, John P., HOLMS, C.R., NISHI, Yoshio. <u>Analysis of the Potential Distribution in the Channel Region of a Platinum Silicided Source/Drain Metal Oxide Semiconductor Field Effect Transistor.</u> <i>Applied Physics Letters</i> , Vol. 74, No. 22, 31 May 1999; pp. 3407-3409.											
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PTO/SB/08A (10/01) (modified)
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitu	te for f	orm 1449A/	PTO	ATENT & TRADES	Application Number	09/928,124						
INE	OP.	MATIC	УИ Г	DISCLOSURE	Filing Date	August 10, 2001						
				APPLICANT	First Named Inventor	John Snyder						
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Sheet		6	of	6	Attorney Docket Number	14466						
OTHER DOCUMENTS - NON-PATENT LITERATURE DOCUMENTS												
*Examiner	Cite	I			LETTERS), title of the article (when a symposium, catalog, etc.), date, pag		TRANS	TRANSLATION				
Initials	No.			number(s), publish	er, city and/or country where published	d	YES	NO				
		SZE, S.M	∕I. <u>Phys</u>	sics of Semiconductor Devic	ces, John Wiley & Sons, Second	Edition, 1981; pp. 293-294.						
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